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EXAMINER

SHEW, JOHN

ART UNIT PAPER NUMBER

2664

DATE MAILED: 06/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/768,820

Applicant(s)

KOROMYSLICHENKO, VLADISLA
NIKOLAEVICH

Examiner

John L Shew

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☒ Claim(s) 1-2,4-6,8-9,14,16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01/24/01 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. The drawings are objected to because

FIG. 5 Step 530 indicates "LSM unit 170" should be "LSM unit 240".

FIG. 5 Step 540 indicates "LSM 170" should be "LSM 240".

FIG. 7 Step 745 indicates "LSM 170" should be "LSM 240".

FIG. 7 Step 750 indicates "LSM 170" should be "LSM 240".

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of

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any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

1. The disclosure is objected to because of the following informalities:

Page 5 line 19 cites "modems (LSMs) 170" should be "modems (LSMs) 240".

Page 7 line 14 cites "SST 140" should be "STS 140".

Page 8 line 9 cites "POTS/ISDN/FBX" should be "POTS/ISDN/PBX".

Appropriate correction is required.

The disclosure is objected to because of the following informalities:

Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999).

The term "radio" in claims 1, 2, 4, 5, 6, 8, 9, 14 and 16 are used by the claim to mean "wired broadcast", while the accepted meaning is "electromagnetic wave

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transmission over a wireless medium". The term is indefinite because the specification does not clearly redefine the term.

The term "modem" in claims 3, 4, 7, 10, 12, 13, 20, 21, and 22 are used by the claim to mean "10Base-S switches", while the accepted meaning is "modulator-demodulator". The term is indefinite because the specification does not clearly redefine the term.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 3, 7, 10-13, 15 and 17-19, are rejected under 35 U.S.C. 102(e) as being anticipated by Cohen et al.

Claim 3, Cohen teaches a method of providing Internet services (column 6 lines 10-18) referenced by communication to the Internet employing a high speed subscriber interface, comprising the steps of (a) receiving Internet data directed

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to an end-user (FIG 2A, column 6 lines 10-24) referenced by receiving Internet communications at the End Station 210, (b) determining a level of network service to which the first end-user is entitled (column 2 lines 29-44, column 13 lines 53-67, column 14 lines 1-2, lines 18-34) referenced by quality of service executed by shim software, (c) if said first end-user is entitled to high-speed network service, routing said data to said first end-user via high-speed lines (column 2 lines 29-38, lines 52-62) referenced by ATM QoS class 1 which is standard digital connections, (d) if said first end-user is only entitled to low-speed network service, routing said data to said first end-user via modem-to-modem service (FIG. 2A, column 2 lines 29-45) referenced by the use of DSL Modem 220 to DSL MUX 252 and association to an ATM QoS class 5 for best effort of quality of service for low-speed network.

Claim 7, Cohen teaches a first end-user is not entitled to high-speed service (FIG. 2A) represented by End Station 210 where the Multimedia Switch 260 controls does not provide high-speed service to the End Station, but there is a second end-user who is entitled to high-speed service (FIG. 2B) referenced by multiple users represented by End Station 210 with connections to DSL Modems 220 where the DSL Modems can be located within a nearby region inclusive of a building structure, then said data is routed via high-speed lines to said first end-user's building then routed to said first end-user via modem-to-modem service (FIG. 2A) referenced by Multimedia Switch 260 routing of service with DSL MUX 252 connection to DSL Modem 220.

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Claim 10, Cohen teaches a system for delivery of Internet-related services (column 6 lines 10-18) referenced by high-speed internet access via copper pair wiring, comprising (a) one or more central switching and routing units (FIG. 2A) referenced by ATM network 270 which performs switching and routing functions, (b) one or more area switching and routing units each of which is connected to at least one central switching and routing unit (FIG. 2A) referenced by Multimedia Switch 260 connected to central ATM network 270, (c) a first set of low-speed modem units each of which is connected to at least one area switching and routing unit (FIG. 2A) referenced by DSL MUX 252 which is a group of multiplexed DSL modems connected to Multimedia Switch 260, (d) a second set of low-speed modem units each of which is connected to one or more low-speed units in said first set of low-speed modem units (FIG. 2A, FIG. 2B) referenced by DSL Modem 220 which is a set of modems connected via network to DSL MUX 252, via a copper-wire network (FIG. 2A, column 6 lines 61-65) referenced by twisted pair line 222, and each of which is connected to an end-user's computer (FIG. 2A) referenced by End Station 210.

Claim 11, Cohen teaches at least one of said one or more area switching and routing units is connected to at least one central switching and routing unit by fibre-optic cable (column 2 lines 20-28) referenced by use of fiber optic OC-3c for ATM network 113 which is equivalent to ATM network 270.

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Claims 12, Cohen teaches first set of low-speed modems comprises at least one 10Base-T switch (FIG. 3) referenced by the DSL Multiplexer with a PHY interface to a 10Base-T port wherein the port performs a switching function similar to a 10Base-S port.

Claims 13, Cohen teaches a second set of low-speed modems comprises at least one 10Base-T switch (FIG. 2A) referenced by DSL Modem 220 which must be compatible to 10Base-T switch protocol of DSL MUX 252. The 10Base-T protocol performs a switching function similar to a 10Base-S protocol.

Claim 15, 17, 18, Cohen teaches (c) one or more local switching and routing units (FIG. 2A) referenced by POTS Splitter 221 which switches and routes between data and voice traffic, each of which is connected to at least one area switching and routing unit (FIG. 2A) referenced by Multimedia Switch 260, wherein each local switching and routing unit is connected to one or more end-user's computers (FIG. 2A) referenced by End Station 210, via copper wire lines (FIG. 2A) referenced by Twisted Pair line 222. Cohen teaches at least one of said one or more area switching and routing units is connected to at least one central switching and routing unit by fibre-optic cable (column 2 lines 20-28) referenced by use of fiber optic OC-3c for ATM Network 113 which is equivalent to ATM Network 270. Cohen teaches at least one of said one or more local switching and routing units is connected to at least one area switching and

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routing unit by fibre-optic cable (column 6 lines 39-57) referenced by fiber-to-the curb local loop infrastructure which brings fiber to the customer premise.

Claim 19, Cohen teaches at least one of said one or more local switching and routing units communicates with one or more end-user's computers using a 10Base-T protocol (FIG 3) referenced by the DSL MUX with a 10Base-T port. The 10Base-T protocol provides a similar switching function as the 10Base-S protocol.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4-6, 8-9, 14, 16 and 20-23, are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen et al. in view of McGraw, Sr. et al.

Claim 1, Cohen et al. teaches a method of providing Internet services (column 6 lines 10-18) referenced by communication to the Internet employing a high speed subscriber interface, comprising the steps of (a) receiving Internet data directed

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to an end-user (FIG 2A, column 6 lines 10-24) referenced by receiving Internet communications at the End Station 210, (b) transmitting said data to said end-user via a modem (FIG 2A) referenced by DSL Modem 220. Cohen does not teach the use of a radio transmission network. McGraw Sr. teaches a radio transmission network (FIG. 1, column 4 lines 43-55) referenced by SAT 000 satellite subsystem which uses radio connecting to the TRX 000 transmission subsystem, both of which are also used as a broadcast and presentation system. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the modem system of Cohen with the network of McGraw for the purpose of providing additional formats of the Internet to the existing telephony network.

Claim 2, Cohen teaches transmitting does not adversely affect radio signals transmitted over said radio-transmission network (column 6 lines 21-24) referenced by the lack of need to upgrade the current physical connection and that the current copper cabling POTS line is sufficient which inherently states no adverse affects. The DSL modem uses a frequency range for data outside that of the audio range of the POTS line thereby no adverse affects result.

Claims 4 and 8, Cohen teaches a method of providing modem-to-modem Internet services. Cohen does not teach a modem-to-modem service over radio-transmission lines. McGraw Sr. teaches modem-to-modem over radio-transmission lines (FIG. 1, Abstract lines 1-3, column 30 lines 36-44) referenced

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by use of modems to PBX 000 and the PBX 000 subsystem connecting to SAT 000 satellite subsystem which uses radio for transmission of broadcast data.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the modem multiplexing system of Cohen with the network of McGraw for the purpose of providing additional formats of the Internet to the existing telephony network.

Claim 5, Cohen teaches a portion of said high-speed network service takes place over fibre-optic lines (FIG. 2A, column 6 lines 55-57) referenced by fiber-to-the-curb local loop structure. Cohen does not teach transmission takes place over radio-transmission lines. McGraw Sr. teaches a portion takes place over radio-transmission lines (FIG. 1) referenced by SAT 000 satellite subsystem which uses radio for broadcast and presentation.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the modem multiplexing system of Cohen with the network of McGraw for the purpose of providing additional formats of the Internet to the existing telephony network.

Claims 6 and 9, Cohen teaches a high speed network service is performed in a frequency range (column 6 lines 19-24) referenced by incorporation of DSL technology for high speed and the current physical copper cabling POTS line is sufficient. The DSL modem uses a frequency range for data outside that of the audio range of the POTS line thereby no adverse affects result to audio traffic.

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Cohen does not teach radio-transmission lines. McGraw Sr. teaches transmission over radio-transmission lines (FIG. 1) referenced by SAT 000 satellite subsystem which uses radio for broadcast and presentation. The incorporation of DSL modems to the existing copper phone lines of PBX 000 subsystem inherently means the SAT 000 subsystem supports the carrier rates from the PBX 000 subsystem.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the modem multiplexing system of Cohen with the network of McGraw for the purpose of providing additional formats of the Internet to the existing telephony network.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen et al. as applied to claims 10-11 above, and in view of McGraw, Sr. et al.

Claim 14, Cohen teaches a DSL modem for network connectivity to data networks including the Internet. Cohen does not disclose a radio-transmission grid. McGraw Sr. et al. teaches a copper-wire network is a radio-transmission grid (FIG. 1, column 4 lines 43-55, column 5 lines 47-53) referenced by TRX 000 transmission subsystem constructed on a traditional copper network which is connected to a SAT 000 satellite radio network for broadcast and presentation purposes.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the modem multiplexing system of Cohen with

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the network of McGraw for the purpose of providing additional formats of the Internet to the existing telephony network.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen et al. as applied to claims 15 above, and in view of McGraw, Sr. et al.

Claim 16, Cohen teaches a DSL modem for network connectivity to data networks including the Internet. Cohen does not disclose radio-transmission lines. McGraw Sr. discloses copper wires are radio-transmission lines (FIG. 1, column 4 lines 43-55, column 5 lines 50-53) referenced by TRX 000 transmission subsystem using copper wires connecting to SAT 000 satellite radio subsystem used for broadcast and presentation purposes.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the modem multiplexing system of Cohen with the network of McGraw for the purpose of providing additional formats of the Internet to the existing telephony network.

Claim 20, Cohen teaches a system for delivery of Internet-related services (column 6 lines 10-18) referenced by high-speed internet access via copper pair wiring, comprising (a) one or more central switching and routing units (FIG. 2A) referenced by ATM network 270 which performs switching and routing functions, (b) one or more area switching and routing units each of which is connected to at least one central switching and routing unit (FIG. 2A) referenced by Multimedia Switch 260 connected to central ATM network 270, (c) one or more local

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switching and routing units, each of which is connected to at least one area switching and routing unit (FIG. 2A) referenced by POTS Splitter 221 which switches and routes between data and voice traffic, (d) a first set of low-speed modem units each of which is connected to at least one area switching and routing unit (FIG. 2A) referenced by DSL MUX 252 which is a group of multiplexed DSL modems connected to Multimedia Switch 260, (e) a second set of low-speed modem units each of which is connected to one or more low-speed units in said first set of low-speed modem units (FIG. 2A, FIG. 2B) referenced by DSL Modem 220 which is a set of modems connected via network to DSL MUX 252, via a copper-wire network (FIG. 2A, column 6 lines 61-65) referenced by twisted pair line 222, and each of which is connected to an end-user's computer (FIG. 2A) referenced by End Station 210. Cohen teaches in a prior art embodiment (f) a set of high-speed interface card units (FIG. 1B) referenced by the ATM NIC 103c, each of which is connected to a local switching and routing unit (FIG. 1B) referenced by the POTS Splitter 117, and to an end-user's computer (FIG. 1B) referenced by PC 103b.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the high speed XDSL modem interface of Cohen's prior art with the modem multiplexing system of Cohen for the purpose of providing additional high speed formats.

Claim 21, Cohen teaches first set of low-speed modems comprises at least one 10Base-T switch (FIG. 3) referenced by the DSL Multiplexer with a PHY interface

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to a 10Base-T port wherein the port performs a switching function similar to a 10Base-S port.

Claim 22, Cohen teaches a second set of low-speed modems comprises at least one 10Base-T switch (FIG. 2A) referenced by DSL Modem 220 which must be compatible to 10Base-T switch protocol of DSL MUX 252. The 10Base-T protocol performs a switching function similar to a 10Base-S protocol.

Claim 23, Cohen teaches set of high-speed interface cards units comprises at least one 10Base-S switch (FIG. 3) referenced by the DSL Multiplexer with a PHY interface to a 10Base-T port wherein the port performs a switching function similar to a 10Base-S port.

Citation of Prior Art


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Patent 6314102, Czerwiec discloses a telecommunications system for both narrowband and wideband services.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John L. Shew whose telephone number is 703-305-8708. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 703-305-4366. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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